

Business ideas to monetize file transfer

Arthur Sacramento

2nodesw@gmail.com

Abstract

This text proposes the requirements and functionalities that a file transfer system should have to remain competitive and modern in the market, offering various advantages for both users and collaborators/partners. Several parts are written in a direct manner, as if they were the planning of a company or organization, and can be applied as such.

Introduction

The objective of our study is to find ways to make file transfer monetization more efficient for both the user and the servers that store their files. We start from the principle that the more a user's files are distributed, the more commission they should receive, meaning that file distribution is encouraged, whether from the server to the common end user or from server to server on a large scale. On the other hand, servers should receive a fair amount according to the amount of data they store and transfer on the network, but primarily based on the relevance, popularity, and quality of the files they store.

What we have nowadays are servers and services that excel at performing one of these tasks but cannot integrate or offer both. There are very good solutions for distributing files, but they fail to provide efficient monetization for the users who own the files or for the servers that distribute them. There are good solutions for checking file ownership, but they tend to be centralized in file storage and do not offer advantages or commissions to those who distribute them.

We consider that an ideal model would work with the user choosing a category and automatically downloading its files, either by relevance or by the most recent ones. The owner or the first user who uploaded the file to the network would earn a commission. The servers providing the files to the user would earn a commission based on the relevance and popularity of the file. An important detail is that each user would also act as a server.

In other words, we want to develop and find the ideal model for compensating and monetizing the user who makes their files available on the network and the servers that distribute them.

Principles

1. The more a user's files are distributed, the more commission they will earn.
2. Servers earn commission based on the popularity and relevance of the files they host.
3. Users can invest in files, gaining profit or loss based on the change in popularity and relevance of these files on the network.
4. Make file transfer monetization increasingly efficient.

Features

1. Identifying the owner or first user who uploaded a file to the network. Thus, the more their file is distributed, the more commission they will receive.
2. Efficiently tracking or verifying which files a user downloaded from a server and whether the server successfully sent the file to the user, thereby avoiding fraud.
3. Finding a way to identify the relevance or popularity of each file.
4. Identifying how much each server or node contributes to the network, taking into account both the quantity of files it stores or transfers and the relevance, quality, and popularity of these files.
5. Building a system where users pay for downloads, with the price calculated based on the relevance of the files and the number of nodes they store.
6. Allowing users to invest in files, profiting or incurring losses based on changes in the popularity or relevance of these files.
7. Make it easy for the user to automatically download content from other nodes or servers, based on criteria such as relevance or category, paying a fee if necessary.

Business models

Simple Model: *Subscription-based access to unlimited file downloads.*

- Users pay a monthly fee or purchase an account to gain access to unlimited file downloads.
- Files are stored in a distributed manner across multiple servers.
- A central server is responsible for receiving payments and distributing a portion to the servers and check the relevance and *metadata* of the files.
- In summary, users pay for the right to download files.

Complex Model: *Dynamic pricing for file downloads with server-side compensation.*

- A framework tracks the files downloaded by users and the amount of storage and bandwidth each server provides.
- Each user pays based on the relevance or popularity of the file they downloaded.
- Each server receives its share without the need for a central server or third parties.

The simple model is more straightforward and easier to understand, but it may be less efficient and scalable. The complex model is more sophisticated and scalable, but it may be more difficult to implement and manage.

The system or business can offer and develop both solutions. One simpler, easier, and more practical, aimed at common users, seeking to approach the concepts, even if it does not fully apply due to technical or financial reasons. And the complex solution aims to serve businesses or companies.

Key points

1. When the user buy a file, can resell it to other users for a higher price.
2. By buying a file, the user will receive a commission every time someone invests in it.
3. When the user invest in a file, so can make a profit or loss depending on its distribution.

Vision

Our vision is revolutionize file transfer monetization by creating a secure and transparent ecosystem built on unique file identification and user contribution.

Mission

Our mission is to empower individuals and businesses, providing innovative tools and solutions that optimize the monetization of file transfers. We aim to create a network where every user's contribution is recognized and fairly rewarded.

Business Values

- Integrity: We prioritize honesty, transparency, and ethical conduct in all our dealings.
- Innovation: We continuously strive to innovate and improve our products and services to meet the evolving needs of our customers.
- Collaboration: We believe in the power of collaboration and partnership to achieve mutual success.
- Transparency: We believe in transparency, ensuring that our processes and algorithms are clear and understandable to all stakeholders.
- Empowerment: We empower users to control and monetize their digital assets, fostering a sense of ownership and value within our community.
- Fairness: We believe in rewarding users based on their contribution to the network. The more a user contributes through storage and transfers, the greater their rewards.

AI

Artificial intelligence can be used to optimize file transfers. Its use can be applied to the creation of 'smart nodes.' A smart node is a server that has the ability to change its attributes and behaviors dynamically and autonomously, in order to become more efficient, according to changes in the network.

Basic storage file system

Our project aims to operate in layers and establish a standard for file storage and naming. The function of the first layer is to store files in a simple and efficient manner.

In the 'files' directory, files will be stored using the SHA-256 hash function, followed by a period and the file extension. For example: 0b46ae836f8667d8f93d6553f4861ddc05f40797d6bb3448eeb70fb53e40dd40.jpg. Any user with access to the directory can know which files are stored in it.

In the 'fragments' directory, files are stored a bit differently. The files are divided into several small parts using base64 encode, and each part is given a SHA-256 hash name. To correctly read a file, it is necessary to know the correct order in which the pieces or fragments should be read. For this purpose, a small list (or long key) will be generated for each file, containing the correct order and pieces to read. Any user with access to the directory cannot know which files are stored in it without having the "key" or the original file beforehand.

Basic sender system

Basically the user lists all files in the 'files' directory and sends them to a list of servers.

Suppose we have a list of servers and a set of files. We run the program, and it checks each file on each server. After checking all files, it logs the results into a file. The log tells us how many files had matching hash values and how many didn't, along with the URLs of the files.

One alternative would be an application or P2P protocol that automatically sends all the user's files to the servers of a category and downloads all the files from each server.

Conclusion

There are many areas that can be improved in file transfer systems, particularly concerning monetization.

Monetization is one of the most critical aspects in a file system, whether centralized, distributed, or decentralized, as it acts as an incentive for servers to remain on the network and for users to distribute their files within it.

There isn't yet a specific popular framework in the market that can solve this problem of monetizing file transfers in a decentralized or distributed manner, or in closely related approaches. Furthermore, it should be able to monitor or track how much a server has offered to a user, considering the relevance, value, and quality of the files.

Such solutions haven't been realized yet because they are either complex or present risks in investment. However, there is still plenty of room for things to happen, albeit sometimes in slow cycles and sometimes in accelerated cycles.

Our goal, therefore, is to meet these market demands and gaps in file monetization transfers. A major differentiator is to make entry barriers increasingly lower, whether with partner hardware or investments.

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